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EXAMINER	
MOORTHY, ARAVIND K	
ART UNIT	**PAPER NUMBER**
2131	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,019	BHATTACHARYA ET AL.	
	Examiner	Art Unit	
	Aravind K. Moorthy	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-11,13-23 and 25-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-11,13-23 and 25-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the amendment filed on 29 August 2005.

2. Claims 1-7, 9-11, 13-23 and 25-28 are pending in the application.

3. Claims 1-7, 9-11, 13-23 and 25-28 have been rejected.

4. Claims 8, 12 and 24 have been cancelled.

Response to Arguments

5. Applicant's arguments with respect to claims 1-7, 9-11, 13-23 and 25-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-7, 17-23 and 25-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Exton et al U.S. Patent No. 6,910,041 B2.

As to claim 1, Exton et al discloses a method of comparing access control lists to configure a security policy on a network, the method comprising the computer-implemented steps of:

identifying first sub-entries in a first access control list [column 4 line 53 to column 5 line 3];

identifying second sub-entries in a second access control list [column 5, lines 4-24];

programmatically determining whether a first access control list is functionally equivalent to a second access control list in order to configure the security policy on the network by determining whether each first sub-entry in the first access control list is equivalent to at least one of the second subentries [column 6, lines 16-60]; and

determining that the first access control list is functionally equivalent to the second access control list only when each of the first sub-entries is equivalent to at least one of the second sub-entries [column 6, lines 16-60].

As to claims 2, 18 and 28, Exton et al discloses that programmatically determining whether a first access control list is equivalent to a second access control list includes:

identifying a dimensional range for each policy action specified in the first access control list, the dimensional range of each policy action characterizing communication packets specified by entries in the first access control list for that policy action [column 6, lines 16-60];

identifying a dimensional range for each policy action specified in the second access control list, the dimensional range of each policy action characterizing communication packets specified by entries in the second access control list for that policy action [column 6, lines 16-60]; and

determining whether the dimensional range identified for each policy action in the first access control list is equivalent to the dimensional range

identified for each policy action in the second access control list [column 6, lines 16-60].

As to claims 3 and 19,Exton et al discloses that identifying a dimensional range for each policy action specified in the first access control list and in the second access control list includes identifying a source address range and a destination address range for communication packets specified by each of the entries in the first access control list and in the second access control list [column 5, lines 26-38].

As to claims 4 and 20,Exton et al discloses that identifying a dimensional range for each policy action specified in the first access control list and in the second access control list includes identifying a source port range and a destination port range for communication packets specified by each of the entries in the first access control list and in the second access control list [column 6, lines 16-60].

As to claims 5 and 21,Exton et al discloses that identifying a dimensional range for each policy action specified in the first access control list and in the second access control list includes identifying a communication protocol for communication packets specified by each of the entries in the first access control list and in the second access control list [column 6, lines 4-31].

As to claims 6 and 22, Exton et al discloses that the first access control list and the second access control list each specify a plurality of entries, and each entry identifies a dimensional range for a policy action, the dimensional range characterizing communication packets that are to be affected by the policy action, and wherein programmatically determining whether a first access control list is equivalent to the second access control list includes:

determining whether each entry in the first access control list has a dimensional range that is either equivalent to or contained by the dimensional range of entries in the second access control list that specify the policy action of the entry in the first access control list [column 6, lines 16-60].

As to claims 7 and 23,Exton et al discloses that the first access control list and the second access control list each specify a plurality of entries, and each entry identifies a dimensional range for a policy action, the dimensional range characterizing communication packets that are to be affected by the policy action, and wherein programmatically determining whether a first access control list is equivalent to the second access control list includes:

determining whether each entry in the first access control list has a dimensional range that is either equivalent to or contained by the dimensional range of entries in the second access control list that specify the policy action of the, entry in the first access control list [column 6, lines 4-31]; and

determining whether each entry in the second access control list has a dimensional range that is either equivalent to or contained by the dimensional range of entries in the first access control list that specify the same policy action [column 6, lines 4-31].

As to claim 17, Exton et al discloses a computer readable medium for comparing access control lists to configure a security policy on a network, the computer readable medium carrying instructions for performing the steps of:

identifying first sub-entries in a first access control list [column 4 line 53 to column 5 line 3];

identifying second sub-entries in a second access control list [column 5, lines 4-24];

programmatically determining whether a first access control list is functionally equivalent to a second access control list in order to configure the security policy on the network by determining whether each first sub-entry is equivalent to at least one of the second sub-entries [column 6, lines 16-60]; and

determining that the first access control list is functionally equivalent to the second access control list only when each of the first sub-entries is equivalent to at least one of the second sub-entries [column 6, lines 16-60].

As to claim 25, Exton et al discloses a computer system for comparing access control lists to configure a security policy on a network, the computer system comprising:

means for identifying first sub-entries in a first access control list [column 4 line 53 to column 5 line 3];

means for identifying second sub-entries in a second access control list [column 5, lines 4-24];

means for programmatically determining whether a first access control list is functionally equivalent to a second access control list in order to configure the security policy on the network by determining whether each first sub-entry is equivalent to at least one of the second sub-entries [column 6, lines 16-60]; and

means for determining that the first access control list is functionally equivalent to the second access control list only when each of the first sub-entries

is equivalent to one of more at least one of the second sub-entries [column 6, lines 16-60].

As to claim 26, Exton et al discloses a policy server communicatively coupled to security devices in a network to configure a security policy on a network, the policy server comprising:

a processor [column 3, lines 41-67];

a network interface that communicatively couples the processor to the network to receive flows of packets therefrom [column 3, lines 41-67];

a memory [column 3, lines 41-67]; and

sequences of instructions in the memory which, when executed by the processor, cause the processor to carry out the steps of:

identifying first sub-entries in a first access control list [column 4 line 53 to column 5 line 3];

identifying second sub-entries in a second access control list [column 5, lines 4-24];

programmatically determining whether a first access control list is functionally equivalent to a second access control list in order to configure the security policy on the network by determining whether each first sub-entry is equivalent at least one of the second sub-entries [column 6, lines 16-60]; and

determining that the first access control is functionally equivalent to the second access control list only when each of the first sub-entries is equivalent to at least one of the second sub-entries [column 6, lines 16-60].

As to claim 27, Exton et al discloses the policy server further comprising a memory to store a plurality of access control lists, including the first access control list and the second access control list, and wherein the processor is configured to configure each security device on the network with at least one of the plurality of access control lists [column 4, lines 41-62].

7. Claims 9-11 and 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Bell et al U.S. Patent No. 6,880,005 B1.

As to claim 9, Bell et al discloses a method of comparing access control lists to configure a security policy on a network, the method comprising:

identifying a dimensional range and a policy action for each entry in a first access control list [column 5 line 63 to column 8 line 30];

identifying all overlapping dimensional ranges in the first access control list, each overlapping dimensional range corresponding to where the dimensional ranges of entries in the first access control list overlap [column 5 line 63 to column 8 line 30];

identifying all non-overlapping dimensional ranges in the first access control list, each of the non-overlapping dimensional ranges corresponding to dimensional ranges of entries in the first access control list that do not overlap dimensional ranges of other entries in the first access control list [column 5 line 63 to column 8 line 30];

identifying a policy action for each identified overlapping dimensional range of the first access control list [column 5 line 63 to column 8 line 30];

identifying a policy action for each identified non-overlapping dimensional range of the first access control list [column 5 line 63 to column 8 line 30]; and

determining whether each identified overlapping and non-overlapping dimensional range identified from the first access control list is contained by or equal to a dimensional range of entries in a second access control list in which the entries of the second access control list have the policy action of that identified overlapping or non-overlapping dimensional range [column 5 line 63 to column 8 line 30];

wherein identifying a policy action for each identified overlapping dimensional range of the first access control list includes using a conflict rule to determine the policy action from a first policy action of a first entry having a dimensional range within the overlapping dimensional rangy, and from a second policy action of a second entry having a dimensional range within the overlapping dimensional range, wherein the second policy conflicts with the first policy [column 5 line 63 to column 8 line 30].

As to claims 10 and 11, Bell et al discloses a method further comprising:

identifying a dimensional range and a policy action for each entry in the second access control [column 5 line 63 to column 8 line 30];

identifying all overlapping dimensional ranges in the second access control list, each overlapping dimensional range corresponding to where the

dimensional ranges of entries in the second access control list overlap [column 5 line 63 to column 8 line 30];

identifying all non-overlapping dimensional ranges in the second access control list, each of the non-overlapping dimensional ranges corresponding to dimensional ranges of entries in the second access control list that do not overlap dimensional ranges of other entries in the second access control list [column 5 line 63 to column 8 line 30];

identifying a policy action for each identified overlapping dimensional range in the second access control list [column 5 line 63 to column 8 line 30];

identifying a policy action for each identified non-overlapping dimensional range of the second access control list [column 5 line 63 to column 8 line 30]; and

determining whether each identified overlapping and non-overlapping dimensional range identified from the second access control list is contained by or equal to a dimensional range of one of-mere entries in the first access control list in which the entries of the first access control list have the policy action of that identified overlapping or non-overlapping dimensional range [column 5 line 63 to column 8 line 30].

As to claim 13, Bell et al discloses that using a conflict rule to determine the policy action comprises selecting one of the first policy or the second policy based on the selected first or second policy being newer [column 4, lines 9-35].

As to claim 14, Bell et al discloses that identifying a dimensional range and a policy action for each entry in the first access control list includes identifying a source address range and a destination address range for communication packets specified by each of the entries in the first access control list [column 3, lines 18-36].

As to claim 15, Bell et al discloses that identifying a dimensional range and a policy action for each entry in the first access control list includes identifying a source port range and a destination port range for communication packets specified by each of the entries in the first access control list [column 3, lines 18-36].

As to claim 16, Bell et al discloses that identifying a dimensional range and a policy action for each entry in the first access control list includes identifying a communication protocol for communication packets specified by each of the entries in the first access control list [column 5 line 63 to column 8 line 30].

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy AM
November 10, 2005

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